

STATE OF HAWAII
DEPARTMENT OF HEALTH
SOLID AND HAZARDOUS WASTE BRANCH
OFFICE OF SOLID WASTE MANAGEMENT

DISPOSAL OF LEAD-BASED PAINT WASTE

Eff. January 1, 2003

This guidance document clarifies existing federal, state and local requirements for the management and disposal of lead-based paint waste, and their impacts on the activities of contractors and other generators of lead-based paint debris. LBP waste is generated from either the abatement, rehabilitation, renovation, remodeling or demolition of non-residential buildings and residential dwellings constructed prior to 1978.

Based on current Federal policy statements and State regulations (see Addendum):

1. **Generators of non-residential LBP waste shall conduct a *hazardous waste determination* according to HAR Chapter 11-261.** The TCLP (Toxicity Characteristic Leaching Procedure) is the test method for determining whether a "solid waste" exhibits the toxicity characteristics of "hazardous waste." Contact the Hazardous Waste Program (808) 586-4226 for a copy of the procedures.
2. **Generators of residential demolition LBP waste shall also conduct a *hazardous waste determination* according to HAR Chapter 11-261.**
3. **Those who generate LBP waste as a result of abatement, rehabilitation, renovation and remodeling in homes and other residences are exempt from *hazardous waste laws*.** However, generators shall follow state and local requirements for proper disposal of non-hazardous LBP waste.
4. **Non-hazardous LBP waste (including "residential LBP waste" defined in a Federal Register "Proposed Rule"¹) is a subset of construction & demolition (C&D) waste that requires special handling. Non-hazardous LBP waste is also referred to as a special waste.** "Special wastes" means any solid waste that, *because of its source or physical, chemical, or biological characteristics*, require special consideration for its proper processing or disposal, or both. This term includes, but is not limited to, asbestos, lead acid batteries, municipal waste combustion ash, sewage sludge that is non-hazardous, medical wastes, tires, white goods, and derelict vehicles.²

LBP Waste Disposal

Dispose of non-hazardous LBP waste at permitted municipal solid waste landfills or

¹ Federal Register, October 23, 2001, Vol. 66, No. 205, pp. 53566-53573

² Section 11-58.1-03, Hawaii's Administrative Rules

permitted C&D waste landfills, such as PVT and Waimanalo Gulch (Oahu); Central Maui, Ma'alaea, Molokai, Hana, and Lanai (Maui County); Pu'uana'hulu and Hilo (Hawai'i); and Kekaha (Kauai).

Landfills in Hawai'i are also subject to further waste acceptance restrictions imposed by county governments. For example, since 1994 the City & County of Honolulu restricted *municipal solid waste landfills* from accepting loads containing C&D waste greater than 10% in volume.

Disposal of "residential LBP waste" defined in the Federal Register³ (CHART 1):

- STEP 1 Qualified or knowledgeable personnel select an LBP identification method (e.g., prior knowledge) and determine if waste contains LBP.
- STEP 2 Dispose with regular household rubbish (homeowners conducting do-it-yourself activities ONLY), OR
- Send to permitted landfill: complete a Waste Profile that will provide the landfill with written notification of incoming LBP waste.
- RESIDENTIAL ABATEMENT PROJECTS: also containerize, solidify and label LBP wastes that are paint chips, dust, and/or sludges:
1. Use durable containers such as steel paint cans.
 2. Solidification may be by methods such as cement (for dust and chips) or absorbent material (for sludges).
 3. Labeling needs to say "Lead Based Paint Waste".
- STEP 3 Declare to the landfill operator that the incoming load contains LBP waste.

Disposal of residential demolition LBP waste, and non-residential LBP waste (CHART 2):

- STEP 1 Qualified or knowledgeable personnel select the proper LBP identification method, and determine if waste contains LBP.
- STEP 2 Make a hazardous waste determination by applying knowledge and by testing. The Hazardous Waste Program (808) 586-4226 has a copy of the procedures.
- STEP 3 Dispose properly based on the outcome of the hazardous waste determination (Section 11-262-11, HAR):
1. If the TCLP result for lead is equal to 5 ppm or greater, the LBP waste is a hazardous waste that must be disposed at a hazardous waste landfill. Landfills in Hawai'i do not accept hazardous wastes.

³ Federal Register, October 23, 2001, Vol. 66, No. 205, pp. 53566-53573

2. If the TCLP result is less than 5 ppm, the LBP waste is a solid waste and may be disposed at Hawai'i landfills that accept construction and demolition wastes. Complete a Waste Profile that will provide the landfill with written notification of incoming LBP waste.

NON-HAZARDOUS, NON-RESIDENTIAL ABATEMENT LBP WASTES: containerize, solidify and label LBP wastes that are paint chips, dust, and/or sludges:

- (1) Use durable containers such as steel paint cans.
- (2) Solidification may be by methods such as cement (for dust and chips) or absorbent material (for sludges).
- (3) Labeling needs to say "Lead Based Paint Waste".

STEP 4 ALL NON-HAZARDOUS LBP WASTES: Declare to the landfill operator that the incoming load contains LBP waste.

LBP waste shall not be recycled. The U.S. EPA believes that LBP waste that is shredded or chopped into mulch, ground cover, or topsoil or for site leveling, fill or roadbed material may cause health risks through ingestion of LBP, dust, or contaminated soil. Further EPA studies have shown that lead is relatively immobile in subsurface soils under non-highly acidic conditions, but may increase in mobility through soil layers to groundwater if soil conditions are more acidic.

Pre-Demolition or Renovation BMPS

To identify and prepare architectural components containing LBP for disposal, the DOH strongly recommends generators and contractors to implement the following practices, prior to demolition or renovation:

- **Identify building components that contain LBP for selective removal** during the demolition or renovation stage. NOTE: components that are selectively removed are subject to a hazardous waste determination, unless the structure is residential, and work is related to renovation or LBP abatement.
- **Abate surfaces.** Abate building components to meet the HUD lead limit of 1.0 mg/cm² or 0.5% by weight. **Treated lumber with LBP, even if abated, may not be recycled into mulch, ground cover, topsoil, fill or roadbed material.**

LBP concrete that is completely abated to where it is no longer considered LBP waste may be recycled.

- **Test representative samples of the waste to determine if their total lead content falls below the lead limit.** A guidance document for measuring lead in paint is available from the DOH Lead Program (808) 586-5800, or the Solid Waste Section (808) 586-4226.

DOH also provides education on LBP sampling as part of the EPA lead accreditation program, which is administered by the DOH Lead Program. The main objective of the accreditation program is to train persons who will be responsible for conducting lead paint abatement activities.

For a current list of permitted landfills contact the Solid Waste Section (808) 586-4226.

Reference

USHUD. 1997. *Chapter 7: Lead-Based Paint Inspection, Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, 1997 Revision*: U.S. Department of Housing and Urban Development, Office of Lead Hazard Control, 1997.

APPROVED / DISAPPROVED

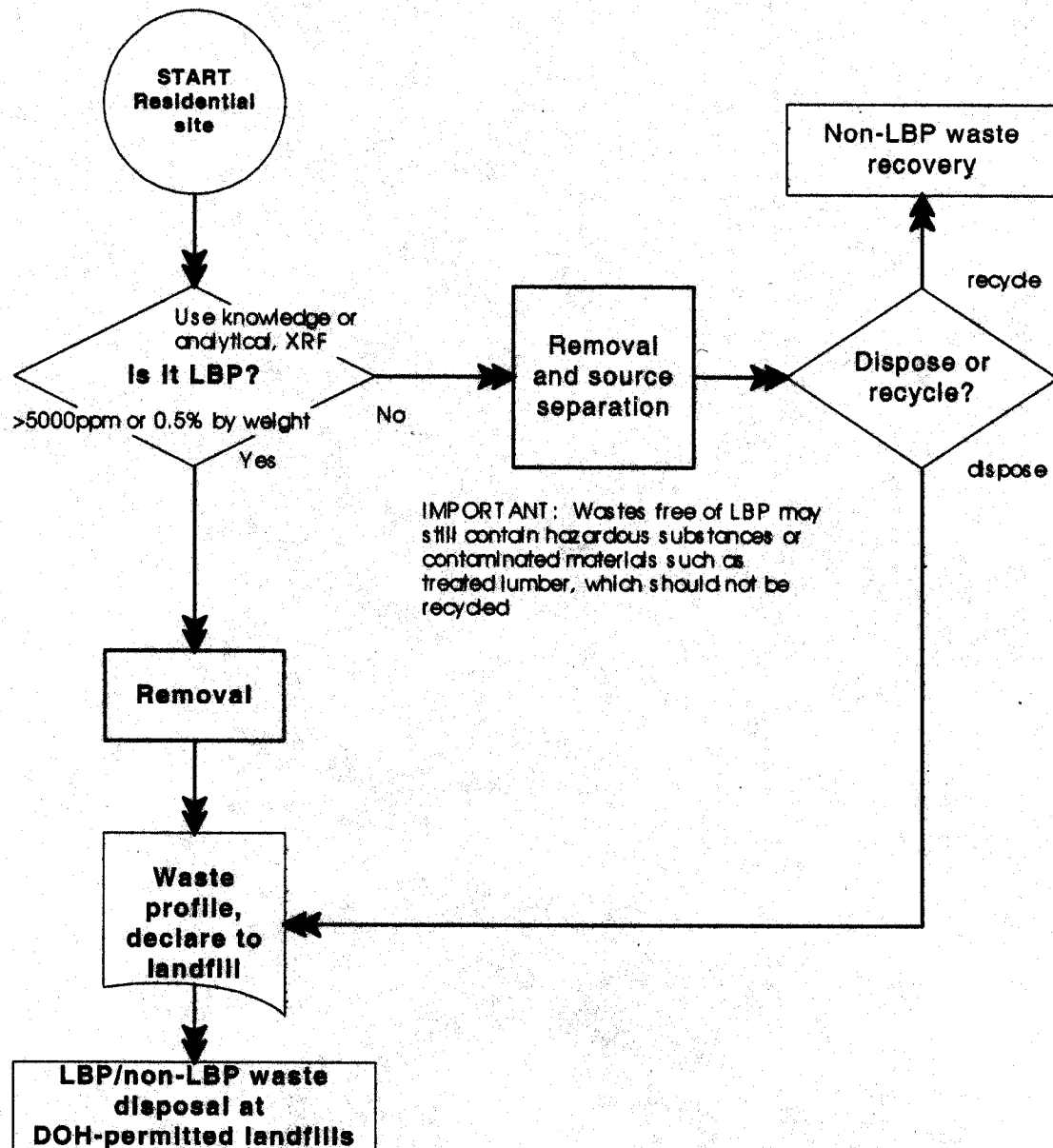
(signed)

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Acting Director of Health
Department of Health

December 23, 2002

Date

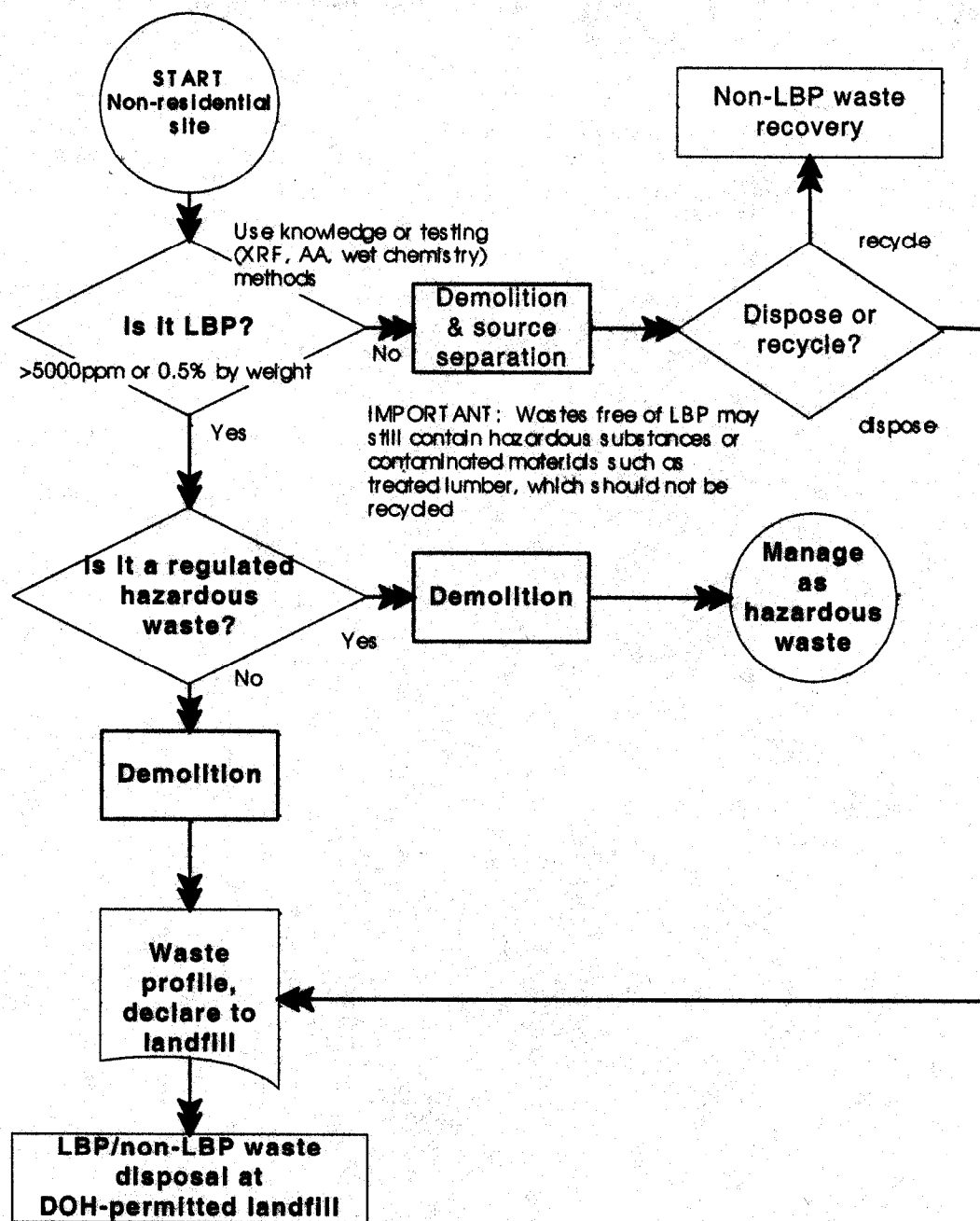
Chart 1
Disposal of Residential Lead-Based Paint (LBP) Waste



NOTES:

1. Residential sources include single family homes, apartment buildings, row houses, military barracks, and college dormitories.
2. Recommended handling of residential LBP chips, dust and sludge: solidify, containerize and label prior to disposal.
3. Waste notification to the landfill is required.
4. Non-LBP wastes containing hazardous substances (e.g., treated lumber) shall be disposed and not recycled.

Chart 2
Disposal of Residential Demolition and
Non-residential Lead-Based Paint Waste



NOTES:

1. Non-residential LBP wastes are subject to hazardous waste determination.
2. Non-LBP wastes containing hazardous substances (e.g., treated lumber) shall be disposed and not recycled.

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**DISPOSAL OF LEAD-BASED PAINT WASTE
ADDENDUM**

Applicable Federal Laws and Actions

- According to Section 403 of the Toxic Substances Control Act (TSCA), as amended, the Environmental Protection Agency (EPA) defines lead-based paint (LBP) as paint with lead levels equal to or exceeding 1.0 milligram per square centimeter (mg/cm^2) or 0.5% by weight.
- The U.S. Department of Housing & Urban Development (HUD) has similarly defined lead-based paint as any paint, varnish, shellac or other coating that contains lead equal to or greater than $1.0 \text{ mg}/\text{cm}^2$ as measured by x-ray fluorescence (XRF) or laboratory analysis, or 0.5 percent by weight (5,000 $\mu\text{g}/\text{g}$, 5,000 ppm, or 5,000 mg/kg) as measured by laboratory analysis.⁴
- In 1978, the Consumer Product Safety Commission (CPSC) banned the sale of residential paint containing greater than 0.06% lead (a trace amount). The CPSC also prohibited the use of such paint in residences and other areas where consumers have direct contact with painted surfaces.
- An EPA policy entitled Update on Lead-based Paint dated August 2000 states that **residential** LBP waste is not subject to Resource Conservation & Recovery Act (RCRA) Subtitle C (Federal hazardous waste) regulations. “Contractors can manage **residential** lead-based paint waste as household waste.” **Residential** sources of LBP waste include but are not limited to single-family homes, apartment buildings, row houses, military barracks and college dormitories.
- The EPA defined “residential lead-based paint waste” in a Federal Register “Proposed Rule”, October 23, 2001 (Vol. 66, No. 205). Residential lead-based paint waste is waste generated as a result of lead-based paint activities (including abatement, rehabilitation, renovation and remodeling) in homes and other residences. The term includes but is not limited to lead-based paint debris, chips, dust, and sludges. The term does not include LBP wastes from demolition activities.
- The EPA interprets residential LBP waste to be household waste under 40 CFR 261.4(b)(1).

⁴ Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (U.S. Department of Housing and Urban Development, 1997 Revision)

Applicable State of Hawai'i Laws

- Hazardous waste regulations, known on the federal level as RCRA Subtitle C⁵ are enforced within the State of Hawai'i under Hawai'i Revised Statutes (HRS) 342J and Hawai'i Administrative Rules (HAR) Title 11, Chapters 261 through 280. Chapter 11-261, HAR defines "household waste" as "any material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas)." *This definition is identical to the Federal definition (40 CFR 261.4(b)(1)).*
- Solid waste regulations, are enforced within the State of Hawai'i under HRS 342H and HAR Title 11, Chapter 58.1 (11-58.1), and provide broader authority to the Department of Health (DOH) than federal regulations, known as RCRA Subtitle D⁶.

⁵ Resource Conservation and Recovery Act (40 CFR Parts 261 to 280)

⁶ Resource Conservation and Recovery Act (40 CFR Parts 258)